

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1626KAS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS	3	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS	4	OCT 07	Multiple databases enhanced for more flexible patent number searching
NEWS	5	OCT 22	Current-awareness alert (SDI) setup and editing enhanced
NEWS	6	OCT 22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications
NEWS	7	OCT 24	CHEMLIST enhanced with intermediate list of pre-registered REACH substances
NEWS	8	NOV 21	CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, and Japanese-language basic patents from 2004-present
NEWS	9	NOV 26	MARPAT enhanced with FSORT command
NEWS	10	NOV 26	MEDLINE year-end processing temporarily halts availability of new fully-indexed citations
NEWS	11	NOV 26	CHEMSAFE now available on STN Easy
NEWS	12	NOV 26	Two new SET commands increase convenience of STN searching
NEWS	13	DEC 01	ChemPort single article sales feature unavailable
NEWS	14	DEC 12	GBFULL now offers single source for full-text coverage of complete UK patent families
NEWS	15	DEC 17	Fifty-one pharmaceutical ingredients added to PS
NEWS EXPRESS	JUNE 27 08	CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.	
NEWS HOURS	STN Operating Hours Plus Help Desk Availability		
NEWS LOGIN	Welcome Banner and News Items		
NEWS IPC8	For general information regarding STN implementation of IPC 8		

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

10586450

12/21/2008

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 16:40:27 ON 21 DEC 2008

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 16:40:38 ON 21 DEC 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 21 Dec 2008 VOL 149 ISS 26

FILE LAST UPDATED: 19 Dec 2008 (20081219/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> s adiponitrile and nickel

2161 ADIPONITRILE

62 ADIPONITRILES

2173 ADIPONITRILE

(ADIPONITRILE OR ADIPONITRILES)

693448 NICKEL

217 NICKELS

693478 NICKEL

(NICKEL OR NICKELS)

L1 288 ADIPONITRILE AND NICKEL

=> s l1 and pentenenitrile

917 PENTENENITRILE

101 PENTENENITRILES

936 PENTENENITRILE

(PENTENENITRILE OR PENTENENITRILES)

L2 87 L1 AND PENTENENITRILE

=> s l2 and (catalyst(1)transfer)

825002 CATALYST

821305 CATALYSTS

10586450 12/21/2008

```
1057017 CATALYST
      (CATALYST OR CATALYSTS)
901916 TRANSFER
31651 TRANSFERS
917338 TRANSFER
      (TRANSFER OR TRANSFERS)
37866 CATALYST(L)TRANSFER
L3      0 L2 AND (CATALYST(L)TRANSFER)

=> s 12 and (regenerating(l)catalyst)
      25784 REGENERATING
      1 REGENERATINGS
      25784 REGENERATING
      (REGENERATING OR REGENERATINGS)
825002 CATALYST
821305 CATALYSTS
1057017 CATALYST
      (CATALYST OR CATALYSTS)
2111 REGENERATING(L)CATALYST
L4      0 L2 AND (REGENERATING(L)CATALYST)

=> s 12 and (lewis(l)acid)
      55729 LEWIS
4728681 ACID
1666241 ACIDS
5249999 ACID
      (ACID OR ACIDS)
32386 LEWIS(L)ACID
L5      39 L2 AND (LEWIS(L)ACID)

=> s 15 and hydrocyanation
      1077 HYDROCYANATION
      12 HYDROCYANATIONS
      1079 HYDROCYANATION
      (HYDROCYANATION OR HYDROCYANATIONS)
L6      38 L5 AND HYDROCYANATION

=> s 16 and ligand
      356614 LIGAND
      243143 LIGANDS
      485058 LIGAND
      (LIGAND OR LIGANDS)
L7      30 L6 AND LIGAND

=> d ibib abs hitstr tot
```

L7 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:71848 CAPLUS
DOCUMENT NUMBER: 148:146971
TITLE: Hydrocyanation processes for production of adiponitrile using multidentate phosphorus-containing ligand and nickel catalyst compositions
INVENTOR(S): Foo, Thomas; Garner, James Michael; Ozer, Ron; Pearlman, Paul S.
PATENT ASSIGNEE(S): Invista Technologies, S.A.R.L., Switz.
SOURCE: PCT Int. Appl., 54pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008008926	A2	20080117	WO 2007-US73413	20070713
WO 2008008926	A3	20081204		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CE, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GE, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
US 20080015382	A1	20080117	US 2007-776968	20070712

PRIORITY APPLN. INFO.: US 2006-830986P P 20060714

OTHER SOURCE(S): CASREACT 148:146971
AB A hydrocyanation process for production of adiponitrile and other C6-dinitriles comprises (a) forming a reaction mixture in the presence of at least one Lewis acid, the reaction mixture comprising ethylenically unsatd. C5-nitriles, hydrogen cyanide, and a catalyst precursor composition, by continuously feeding ethylenically unsatd. nitriles, hydrogen cyanide, and a catalyst precursor composition, (b) controlling X and Z, wherein X is the overall feed molar ratio of 2-pentenitriles to all unsatd. nitriles, and Z is the overall feed molar ratio of hydrogen cyanide to all unsatd. nitriles, by selecting a value for X in the range from 0.001 to 0.5, and a value for Z in the range from 0.5 to about 0.99, such that the value of $Q = X / [(moles\ 3PN + 4PN\ in\ the\ feed) / (moles\ all\ unsatd.\ nitriles\ in\ the\ feed) - Z]$ is in the range from 0.2 to 10, wherein 3PN is 3-pentenitriles and 4PN is 4-pentenitrile, and (c) withdrawing a reaction product mixture comprising adiponitrile, wherein the ratio of the concentration of 2-

L7 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
pentenenitriles to the concn. of 3-pentenitriles in the reaction mixt. is from 0.2/1 to 10/1. The catalyst precursor compn. comprises a zero-valent nickel and at least one multidentate phosphorus-contg. ligand selected from a phosphite, a phosphonite, a phosphinite, a phosphine, and a mixed phosphorus-contg. ligand, and the multidentate phosphorus-contg. ligand gives acceptable results according to at least one protocol of the 2-Pentenitrile Hydrocyanation Test Method.

L7 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:71663 CAPLUS
DOCUMENT NUMBER: 148:146967
TITLE: Hydrocyanation processes for production of adiponitrile using bidentate phosphite ligand and nickel catalyst compositions
INVENTOR(S): Foo, Thomas; Garner, James Michael; Ozer, Ron
PATENT ASSIGNEE(S): Invista Technologies S.A R.L., Switz.
SOURCE: PCT Int. Appl., 41pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008008930	A2	20080117	WO 2007-US73421	20070713
WO 2008008930	A3	20080529		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CE, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GE, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
US 20080015381	A1	20080117	US 2007-776954	20070712

PRIORITY APPLN. INFO.: US 2006-830865P P 20060714

OTHER SOURCE(S): CASREACT 148:146967; MARPAT 148:146967
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A hydrocyanation process for production of adiponitrile and other C6-dinitriles comprises (a) forming a reaction mixture in the presence of at least one Lewis acid, the reaction mixture comprising ethylenically unsatd. C5-nitriles, hydrogen cyanide, and a catalyst precursor composition, by continuously feeding ethylenically unsatd. nitriles, hydrogen cyanide, and a catalyst precursor composition, (b) controlling X and Z, wherein X is the overall feed molar ratio of 2-pentenitriles to all unsatd. nitriles, and Z is the overall feed molar ratio of hydrogen cyanide to all unsatd. nitriles, by selecting a value for X in the range from 0.001 to 0.5, and a value for Z in the range from 0.5 to about 0.99, such that the value of $Q = X / [(moles\ 3PN + 4PN\ in\ the\ feed) / (moles\ all\ unsatd.\ nitriles\ in\ the\ feed) - Z]$ is in the range from 0.2 to 10, wherein 3PN is 3-pentenitriles and 4PN is 4-

L7 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
pentenenitrile, and (c) withdrawing a reaction product mixt. comprising adiponitrile, wherein the ratio of the concn. of 2-pentenitriles to the concn. of 3-pentenitriles in the reaction mixt. is from 0.2/1 to 10/1. The catalyst precursor compn. comprises a zero-valent nickel and at least one bidentate phosphite ligand selected from a member represented by the formulas I and II, where each R1 is independently selected from Me, Et, and primary C3-C6-hydrocarbyl; each R2 is independently selected from primary and secondary C1-C6-hydrocarbyl; and each R11, R12, R13, R21, R22 and R23 is independently selected from H, aryl, and primary, secondary or tertiary C1-C6-hydrocarbyl.

L7 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:71630 CAPLUS
DOCUMENT NUMBER: 148:170780
TITLE: Hydrocyanation of 2-pentenitrile
using multidentate phosphorus-containing
ligand and nickel catalyst
compositions
INVENTOR(S): Garner, James Michael; Lenges, Christian P.; Mc
Kinney, Ronald J.
PATENT ASSIGNEE(S): Invista Technologies S.A.R.L., Switz.; Tam, Wilson
SOURCE: PCT Int. Appl., 28pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008008927	A2	20080117	WO 2007-US73414	20070713
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GR, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
US 20080015379	A1	20080117	US 2007-776904	20070712
PRIORITY APPLN. INFO.:			US 2006-830864P	P 20060714

OTHER SOURCE(S): CASREACT 148:170780; MARPAT 148:170780
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A process for hydrocyanation comprises contacting 2-pentenitrile with HCN at 0-150° in the presence of ≥ 1 Lewis acid promoter and a catalyst precursor composition comprising a zero-valent Ni and ≥ 1 bidentate phosphite ligand selected from a member represented by the formulas I and II, where R1 and R5 are independently selected from C1-C5-hydrocarbyl; and R2, R3, R4, R6, R7 and R8 are independently selected from H and C1-C4-hydrocarbyl. The process can be used to convert up to 60% of cis-2-pentenitrile to a dinitrile mixture comprising > 90% of adiponitrile.

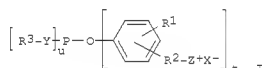
L7 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:100771 CAPLUS
DOCUMENT NUMBER: 144:192376
TITLE: Preparation of ionic phosphites and other ionic organophosphorus compounds, use as catalyst ligand with nickel-group metals in preparation of nitriles like adiponitrile via hydrocyanation
INVENTOR(S): Galland, Jean Christophe; Bassett, Jean Marie; Vallee, Christophe
PATENT ASSIGNEE(S): Rhodia Chimie, Fr.
SOURCE: Fr. Demande, 46 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2873696	A1	20060203	FR 2004-8440	20040730
FR 2873696	B1	20061013		

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): CASREACT 144:192376; MARPAT 144:192376

GI



AB The present invention relates to the preparation of nitriles starting from unsatd. organic compds. with reaction with HCN and the use of ionic organophosphorus compds. in the catalytic system. The invention also relates to the ionic organophosphorus compds. (shown as I; R1 = linear or branched C1-6 alkyl with possible heteroatom substitution in the chain and may form a condensed ring with an aromatic ring; R2 = covalent bond or C1-6 alkyl with possible heteroatom substitution in the chain; Z = ammonium, guanidinium, phosphonium, imidazolium, et al.; Y = O, covalent bond or C1-6 alkyl; X = anionic group; R3 = (un)substituted phenyl; t = 1-3; u = 3-t; also (Q1-Y1) (Q2-Y2) (Q3-Q4) (Y4-Q4); Y1-Y4 independently = O, covalent bond or C1-6 alkyl; Q1-Q4 independently = R3 possibly with an ionic substituent; L = 1,1'-biphenyl-2,2'-diyl possibly with ≥ 1 ionic substituent; addnl. details are given in the claims.). More particularly, the invention relates to preparation of adiponitrile, an important chemical intermediary for the manufacture of chemical compds. such as the hexamethylenediamine and its ϵ -caprolactam. For example, 131 equiv of 2-methyl-3-butenitrile was isomerized to linear pentenenitriles (42 % reaction of 2-methyl-3-butenitrile; 84 % selectivity) in the presence of 1 equiv of ZnCl2, 1 equiv of Ni(COD)2,

and

saeed

L7 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L7 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
5 equiv of the tris[bis(trifluoromethylsulfonyl)amide] salt of tris[4-(2,3-dimethyl-1H-imidazolium-1-ylmethyl)phenyl] phosphite in the ionic liq. [BMMI][NTf2] and the resulting mixt. was reacted with acetone cyanohydrin to give adiponitrile (17 % reaction; 54 % selectivity; 71 % linearity); other catalyst systems were also tested. The prepn. process of org. compds. including at least a nitrile function comprises hydrocyanation by HCN of an org. compd. including at least an ethylene linkage. This reaction is implemented in the presence of a catalytic system including a compd. of a metal element chosen from Ni, Pt, and Pd (e.g. Ni(COD)2) and an ionic organophosphorus ligand.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

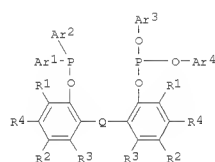
L7 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1273465 CAPLUS
DOCUMENT NUMBER: 145:356850
TITLE: Design of ionic phosphites for catalytic hydrocyanation reaction of 3-pentenitrile in ionic liquids
AUTHOR(S): Vallee, Christophe; Chauvin, Yves; Basset, Jean-Marie;
CORPORATE SOURCE: Santini, Catherine C.; Galland, Jean-Christophe
UMR: Laboratoire de Chimie Organometallique de Surface,
SOURCES: 9986, CNRS - ESCPE Lyon, Villeurbanne, F-69626, Fr. Advanced Synthesis & Catalysis (2005), 347(14), 1835-1847
CODEN: ASCAF7; ISSN: 1615-4150
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 145:356850
AB The synthesis and characterization of a novel class of ionic phosphites bearing either a single cationic group obtained by quaternization of aminophosphites or three cationic groups prepared by reaction of phosphorus trichloride with imidazolium phenols are reported. The catalytic hydrocyanation reaction of 3-pentenitrile (3PN) into adiponitrile has been performed in the presence of Ni(0) with ionic phosphite ligands, and a Lewis acid in biphasic ionic liquid/organic solvent system. The screening of several original cationic phosphites was performed and the exptl. conditions were optimized for the tricationic phosphite tris-4-[(2,3-dimethylimidazol-1-yl)methyl]phenyl phosphite tris[bis(trifluoromethylsulfonyl)amide]. It is possible to obtain performance similar to mol. systems and the catalyst and the Lewis acid were immobilized in the ionic phase.
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L7 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:409533 CAPLUS
DOCUMENT NUMBER: 142:430424
TITLE: Design and preparation of sterically hindered chelate phosphinite-phosphite ligands for nickel-catalyzed preparation of nitriles and dinitriles by hydrocyanation of unsaturated compounds
INVENTOR(S): Bartsch, Michael; Baumann, Robert; Haderlein, Gerd; Flores, Miguel Angel; Jungkamp, Tim; Luyken, Hermann; Scheidel, Jens; Siegel, Wolfgang
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005042547	A1	20050512	WO 2004-EP12176	20041028
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
FW: BW, CH, GM, KE, LS, MW, ME, NA, SD, SL, SE, TG, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10350999	A1	20050602	DE 2003-10350999	20031030
CA 2543673	A1	20050512	CA 2004-2543673	20041028
EP 1682559	A1	20060726	EP 2004-790949	20041028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1875025	A	20061206	CN 2004-80032095	20041028
BR 2004016080	A	20070102	BR 2004-16080	20041028
JP 2007509886	T	20070419	JP 2006-537184	20041028
MX 2006PA03939	A	20060703	MX 2006-PA3939	20060407
US 20070060766	A1	20070315	US 2006-577138	20060425
KR 2006107797	A	20061016	KR 2006-710455	20060529
IN 2006CN01887	A	20070223	IN 2006-CN1887	20060529
PRIORITY APPLN. INFO.:			DE 2003-10350999	A 20031030
			WO 2004-EP12176	W 20041028

OTHER SOURCE(S): MARPAT 142:430424
GI

L7 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



AB The 2,2'-biphenol, 2,2'-methylenbis(phenol) and 2,2'-binaphthol-bridged phosphinite-phosphite ligands, preferably of the type I (Ar1, Ar2 = Ph, fluoro- and trifluoromethyl-substituted Ph, preferably 3-FC6H4, 3,5-F2C6H3, 3-(CF3)C6H4, 3,5-(CF3)2C6H3; Ar3 = Ar4 = 2-MeC6H4; Q = (CH2)n, where n = 0, 1; R1, R2, R4 = H, C1-8 (un)saturated hydrocarbyl; R3 = H, Me, Et; or R2-R3 = (CH)4, same R1, R2, R4) are designed for nickel (0)-catalyzed hydrocyanation of butadiene to give 3-pentenitrile and adiponitrile in the presence of Lewis acid promoters, such as metal chlorides and triflates. In an example, ligand of the type I (2, Ar1 = Ar2 = Ph, Ar3 = Ar4 = 2-MeC6H4, R1 = R2 = Me, R3 = R4 = H) was prepared by reaction of 3,3',5,5'-tetramethyl-2,2'-biphenol with Ph2PCl and (2-MeC6H4O)2PCl in toluene at -15°. Hydrocyanation of 1,3-butadiene by HCN catalyzed by Ni(cod)2/2 (1:3 mol. ratio; C4H6/HCN = 1.6:1; 0.135 mol % of the catalyst) gave a 1.5:1 mixture of 2-methyl-3-butenitrile and 3-pentenitrile; the ratio was enhanced to 1:4.6 upon isomerization during 1 h at 115°. In another example, 3-pentenitrile was hydrocyanated to adiponitrile with the same catalyst at 25° for 88 min in the presence of ZnCl2 with regioselectivity of 91.3%. In comparison examples, use of o- and m-tolyl phosphite nickel(0) complex gave only 79.6% selectivity on adiponitrile.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L7 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1018472 CAPLUS
DOCUMENT NUMBER: 141:405226
TITLE: Process for manufacturing indium carboxylates and use as co-catalysts in hydrocyanation and other reactions
INVENTOR(S): Galland, Jean Christophe; Lamy, Franck; Chaudret, Bruno; Sabo, Etienne Sylviane
PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.; Centre National de la Recherche Scientifique CNRS
SOURCE: Fr. Demande, 10 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2855175	A1	20041126	FR 2003-6144	20030522
FR 2855175	B1	20060922		
PRIORITY APPLN. INFO.:			FR 2003-6144	20030522

OTHER SOURCE(S): MARPAT 141:405226
AB [Machine Translation of Descriptors]. The present invention relates to a manufacturing process of composed of indium. Elle more particularly relates to a manufacturing process of carboxylate of indium, and more particularly of indium tricarboxylates presenting the properties of the acids of proceeded Lewis. Ce consists in making react, in anhydrous medium, an indium halogenure with a compound of general formula (II) r-coo-m [II] Dans which m indicates an alkaline metal or ion NH4+, in the presence of a polar anhydrous solvent aprotic.

L7 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:992727 CAPLUS
DOCUMENT NUMBER: 141:425573
TITLE: Process for production of dinitriles by butadiene hydrocyanation
INVENTOR(S): Bourgeois, Damien; Rosier, Cecile; Leconte, Philippe
PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
SOURCE: Fr. Demande, 18 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2854892	A1	20041119	FR 2003-5673	20030512
FR 2854892	B1	20050624		
WO 2004101498	A2	20041125	WO 2004-FR1110	20040507
WO 2004101498	A3	20050127		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AS, AY, KG, KP, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1622863	A2	20060208	EP 2004-742669	20040507
EP 1622863	B1	20080813		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1787991	A	20050614	CN 2004-80012864	20040507
JP 2007502854	T	20070215	JP 2006-530334	20040507
RU 2299194	C2	20070520	RU 2005-138494	20040507
AT 404530	T	20080815	AT 2004-742669	20040507
KR 2006040585	A	20060510	KR 2005-721384	20051110
IN 2005CN02976	A	20070727	IN 2005-CN2976	20051111
US 20070155979	A1	20070705	US 2006-556628	20060921
PRIORITY APPLN. INFO.:			FR 2003-5673	A 20030512
			WO 2004-FR1110	W 20040507

AB The process comprises at least a stage of butadiene hydrocyanation in the presence of a catalytic system containing an organometallic complex having ≥ 1 monodentate organophosphite ligand and ≥ 1 bidentate organophosphorus ligand and optional promoter such as Lewis acid, a stage of distillation to sep. and recover the catalyst. The distillation is done at a molar ratio of organo-P ligand (as P atom) to the number of metal atom of ≤ 15 , or/and

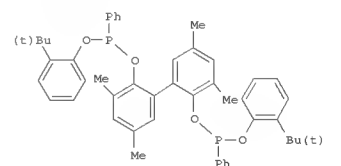
L7 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:841730 CAPLUS
DOCUMENT NUMBER: 141:351754
TITLE: Nickel complex catalytic system for hydrocyanation of olefins
INVENTOR(S): Bartsch, Michael; Baumann, Robert; Haderlein, Gerd; Flores, Miguel; Jungkamp, Tim; Luyken, Hermann; Scheidel, Jens; Siegel, Wolfgang; Molnar, Ferenc
PATENT ASSIGNEE(S): BASF AG, Germany
SOURCE: Ger. Offen., 19 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10314761	A1	20041014	DE 2003-10314761	20030331
CA 2520571	A1	20041014	CA 2004-2520571	20040324
WO 2004087314	A1	20041014	WO 2004-EP3103	20040324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1610893	A1	20060104	EP 2004-722843	20040324
EP 1610893	B1	20070307		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
BR 2004008722	A	20060307	BR 2004-8722	20040324
CN 1767895	A	20060503	CN 2004-80009119	20040324
CN 100364666	C	20080130		
JP 2006521918	T	20060928	JP 2006-504836	20040324
AT 355902	T	20070315	AT 2004-722843	20040324
ES 2284000	T3	20071101	ES 2004-722843	20040324
US 20060258874	A1	20061116	US 2005-551139	20050929
IN 2005CN02815	A	20070406	IN 2005-CN2815	20051031
PRIORITY APPLN. INFO.:			DE 2003-10314761	A 20030331
			WO 2004-EP3103	W 20040324

OTHER SOURCE(S): MARPAT 141:351754
GI

L7 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
at the wt. concn. of metal element of $\leq 1.3\%$ and a bottom temp. of $\leq 180^\circ$.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



AB A catalytic system useful for hydrocyanation of unsatd. nitriles in the manufacture of adiponitrile comprises (A) Ni(0), (B) trivalent P-compound as ligand for complexing Ni(0), (C) a Lewis acid, and (D) a compound of the formula MR_n (M = Al, Ti; R = alkoxy, alkyl; with a proviso; n = valence of M). For example, stirring a mixture of 1 equiv NTP [Ni(0)-tris(m,p-tolyl) phosphite complex containing 2.35% Ni(0), 19% 3-pentenitrile (3-PN) and 78.65% m,p-tolyl phosphite] with 1000 equiv 3-PN and 2 equiv ligand I for 1 h at 25°, heating the mixture to 60°, adding 1 equiv AlEt₃ and 1 equiv ZnCl₂, stirring for 5 min and introducing 303 equiv HCN(g)/h-Ni under Ar gave, after 140 min, 64% adiponitrile (ADP) with 95.5% selectivity for ADP, vs. 35.8% yield and 94.8% selectivity for a similar run without AlEt₃.

10586450 12/21/2008

L7 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:513397 CAPLUS
 DOCUMENT NUMBER: 141:73327
 TITLE: Process of synthesis of compounds having nitrile functions from ethylenically unsaturated compounds using complex catalysts
 INVENTOR(S): Rozier, Cecile; Marion, Philippe; Bourgeois, Damien
 PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
 SOURCE: U.S. Pat. Appl. Publ., 10 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040122251	A1	20040624	US 2003-353912	20030130
US 7084293	B2	20060801		
FR 2849027	A1	20040625	FR 2002-16550	20021223
FR 2849027	B1	20050121		
WO 2004065352	A2	20040805	WO 2003-FR3690	20031212
WO 2004065352	A3	20040910		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NI, NO, NG, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, TJ, TM, TN, TR, TT, TW, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GE, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,				
TG				
AU 2003300584	A1	20040813	AU 2003-300584	20031212
EP 1585722	A2	20051019	EP 2003-815395	20031212
EP 1585722	B1	20080709		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1745062	A	20060308	CN 2003-80109332	20031212
CN 1315790	C	20070516		
JP 2006511591	T	20060406	JP 2004-566993	20031212
RU 2283831	C2	20060920	RU 2005-123382	20031212
AT 400548	T	20080715	AT 2003-815395	20031212
IN 2005CN01371	A	20071005	IN 2005-CN1371	20050622
US 20060252955	A1	20061109	US 2006-475210	20060627
PRIORITY APPLN. INFO.:			FR 2002-16550	A 20021223
			US 2003-353912	A3 20030130
			WO 2003-FR3690	W 20031212

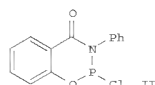
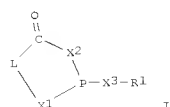
OTHER SOURCE(S): MARPAT 141:73327
 AB The present invention relates to a process of hydrocyanation of ethylenically unsatd. organic compds. to compds. having at least one nitrile

L7 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 function, particularly the hydrocyanation of diolefins such as butadiene, or of substituted olefins such as alkene nitriles such as pentenenitriles; the subject hydrocyanation is carried out in the presence of a catalytic system comprising a metallic element and mono- and multi-dentate organophosphorus ligands.
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L7 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:450603 CAPLUS
 DOCUMENT NUMBER: 141:8868
 TITLE: Process for manufacture of nitrile compounds from ethylenically unsaturated compounds
 INVENTOR(S): Gailand, Jean Christophe; Didillon, Blaise; Marion, Philippe; Bourgeois, Damien
 PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
 SOURCE: Fr. Demande, 24 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2847898	A1	20040604	FR 2002-15115	20021202
WO 2004060855	A1	20040722	WO 2003-FR3475	20031125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HD, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NI, NO, NG, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, TJ, TM, TN, TR, TT, TW, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GE, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,				
TG				
AU 2003294074	A1	20040729	AU 2003-294074	20031125
EP 1567478	A1	20050931	EP 2003-789490	20031125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1732148	A	20060208	CN 2003-80107525	20031125
JP 2006516543	T	20060706	JP 2004-564272	20031125
IN 2005CN01083	A	20070622	IN 2005-CN1083	20050601
US 20060142609	A1	20060629	US 2005-537260	20051014
PRIORITY APPLN. INFO.:			FR 2002-15115	A 20021202
			WO 2003-FR3475	W 20031125

OTHER SOURCE(S): CASREACT 141:8868; MARPAT 141:8868
 GI



AB Nitriles are manufactured by hydrocyanation of ethylenically unsatd. compds. in liquid media in the presence of transition metal compds. and ligands I [X1, X2 = O or NR2, R2 = H, alkyl, aryl, sulfonyl,

L7 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 cycloalkyl, or carbonyl, X3 = covalent bond, O, or NR2, R1 = (heteroatom-contg.) C1-12 alkyl or arom. or cycloaliph. radical optionally substituted and optionally contg. heteroatoms and ≥ 1 condensed or noncondensed ring, L = (heteroatom-contg.) divalent C1-12 alkyl or divalent arom. or cycloaliph. radical optionally substituted and optionally contg. heteroatoms or ≥ 1 condensed or noncondensed ring]. The process is particularly useful for the synthesis of adiponitrile starting from butadiene. A typical I was manufd. by dropwise adding THF contg.. 600 mg o-tert-butylphenol and 0.85 mL NEt_3 to a THF-PhMe soln. contg. 1.1 g phosphorochloridite II at -10° with stirring and stirring the resulting suspension 18 h at 25° . thus, adiponitrile was prepd. in 74% yield from 3-pentenitrile via cyanation with acetone cyanohydrin in the presence of I [R1 = o-tolyl, L = 1,2-phenylene, X1 = X3 = O, X2 = NPh], bis(1,5-cyclooctadiene) nickel and ZnCl_2 .
 REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

10586450 12/21/2008

L7 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:291086 CAPLUS
DOCUMENT NUMBER: 140:323174
TITLE: Hydrocyanation process and catalyst system for the manufacture of nitriles from ethylenically unsaturated compounds
INVENTOR(S): Galland, Jean Christophe; Krumenacker, Leon
PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
SOURCE: Fr. Demande, 23 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2845379	A1	20040409	FR 2002-12301	20021004
FR 2845379	B1	20041203		
PRIORITY APPLN. INFO.:			FR 2002-12301	20021004

OTHER SOURCE(S): CASREACT 140:323174; MARPAT 140:323174
AB Nitriles, (e.g., adiponitrile) are prepared by the hydrocyanation of alkenes (e.g., butadiene) with HCN in the presence of a catalyst system comprising a transition metal and a silane group-containing phosphine ligand.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:737717 CAPLUS
DOCUMENT NUMBER: 139:262467
TITLE: Phosphonite ligands and their use in hydrocyanation
INVENTOR(S): Lenges, Christian P.; Lu, Helen S. M.; Ritter, Joachim
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003076394	A1	20030918	WO 2003-US7033	20030307
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG				
US 20030195371	A1	20031016	US 2002-93655	20020307
US 6660877	B2	20031209		
TW 266650	B	20061121	TW 2002-91138062	20021231
AU 2003218000	A1	20030922	AU 2003-218000	20030307
US 20030195372	A1	20031016	US 2003-454074	20030604
US 6737539	B2	20040518		
US 20030212288	A1	20031113	US 2003-454024	20030604
US 6846945	B2	20050125		
PRIORITY APPLN. INFO.:			US 2002-93655	A 20020307
			WO 2003-US7033	W 20030307

OTHER SOURCE(S): MARPAT 139:262467
AB Disclosed herein are processes for hydrocyanation and isomerization of olefins by using at least one multidentate phosphonite ligands, including organometallic phosphonite ligands with a Group VIII metal or Group VII metal compound, and optionally, a Lewis acid promoter. Thus, trans-3-pentenitrile was reacted in the presence of bis(1,5-cyclooctadiene) nickel, phosphonite bidentate ligand, and zinc dichloride to give an adiponitrile.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:639036 CAPLUS
DOCUMENT NUMBER: 139:181967
TITLE: Hydrocyanation process and catalysts for the manufacture of linear nitriles from ethylenically unsaturated compounds
INVENTOR(S): Didiillon, Blaise; Marion, Philippe; Bourgeois, Damien;
PATENT ASSIGNEE(S): Galland, Jean Christophe
SOURCE: Rhodia Polyamide Intermediates, Fr.
Fr. Demande, 22 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2835833	A1	20030815	FR 2002-1748	20020213
FR 2835833	B1	20040319		
WO 2003068729	A1	20030821	WO 2003-FR411	20030210
WO 2003068729	A8	20040610		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2003219273	A1	20030904	AU 2003-219273	20030210
PRIORITY APPLN. INFO.:			FR 2002-1748	A 20020213
			WO 2003-FR411	W 20030210

OTHER SOURCE(S): CASREACT 139:181967; MARPAT 139:181967
AB A hydrocyanation process is described for the hydrocyanation of alkenes and unsatd. nitriles (e.g., 3-pentenitrile) with hydrogen cyanide into nitriles or dinitriles (e.g., adiponitrile) in the presence of a transition metal complex catalyst (e.g., nickel cyclooctadiene) and a mono- or polydentate ligand (e.g., 5,5'-[1,2-benzenediylbis(methylene)]bis-5H-benzo[b]phosphindole).

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:434615 CAPLUS
DOCUMENT NUMBER: 139:22616
TITLE: Polymer supported bis(phosphorus)ligands and their use in the catalysis
INVENTOR(S): Qiu, Weiming; Cobb, Michael W.
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003046019	A1	20030605	WO 2002-US37967	20021126
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2468127	A1	20030605	CA 2002-2468127	20021126
AU 2002365409	A1	20030610	AU 2002-365409	20021126
US 20030153691	A1	20030814	US 2002-305230	20021126
US 6984604	B2	20060110		
EP 1448620	A1	20040825	EP 2002-791322	20021126
EP 1448620	B1	20080604		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002015095	A	20041116	BR 2002-15095	20021126
JP 2005510588	T	20050421	JP 2003-547467	20021126
CN 1617892	A	20050518	CN 2002-827513	20021126
CN 1289539	C	20061213		
AT 397627	T	20080615	AT 2002-791322	20021126
MX 2004PA04936	A	20040811	MX 2004-PA4936	20040524
PRIORITY APPLN. INFO.:			US 2001-333365P	P 20011126
			WO 2002-US37967	W 20021126

OTHER SOURCE(S): MARPAT 139:22616
AB Supported bis(phosphorus) ligands are disclosed for use in a variety of catalytic processes, including the isomerization, hydrogenation, hydroformylation, and hydrocyanation of unsatd. organic compds. Catalysts are formed when the ligands are combined with a catalytically active metal, such as nickel.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:434441 CAPLUS
 DOCUMENT NUMBER: 139:23492
 TITLE: Unsaturated phosphorus-containing compositions and their use in hydrocyanation, isomerization and hydroformylation reactions
 INVENTOR(S): Gagne, Michel R.; Moloy, Kenneth G.; Radu, Nora S.; Santora, Brian P.; Tam, Wilson
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
 SOURCE: PCT Int. Appl., 71 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003045552	A2	20030605	WO 2002-US37304	20021120
WO 2003045552	A3	20031030		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
US 20030144440	A1	20030731	US 2001-994135	20011126
US 6660876	B2	20031209		
CA 2468195	A1	20030605	CA 2002-2468195	20021120
AU 2002348313	A1	20030610	AU 2002-348313	20021120
EP 1448298	A2	20040825	EP 2002-782340	20021120
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MW, CY, AL, TR, BG, CZ, EE, SK			
BR 2002014629	A	20041103	BR 2002-14629	20021120
JP 2005510547	T	20050421	JP 2003-547046	20021120
CN 1617764	A	20050518	CN 2002-827535	20021120
CN 100345635	C	20071031		
EP 1905511	A2	20080402	EP 2007-24054	20021120
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, SK, TR, AL, LT, LV, MK, RO, SI			
US 20040054105	A1	20040318	US 2003-659205	20030910
US 6924345	B2	20050802		
MX 2004PA04938	A	20040811	MX 2004-PA4938	20040524
PRIORITY APPLN. INFO.:			US 2001-994135	A 20011126
			EP 2002-782340	A3 20021120
			WO 2002-US37304	W 20021120

OTHER SOURCE(S): MARPAT 139:23492
 AB The present invention relates to ethylenically unsatd., P-containing,

L7 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 bidentate ligands (monomers) and polymeric derivs. thereof as well as polymeric precursors to said polymeric derivs. and methods of making the same. The present invention also relates to catalyst compns. involving a Group VIII metal in the presence of the polymeric bidentate ligands and use of such catalysts in hydrocyanation, isomerization, and hydroformylation reactions with the benefit of easy recovery. The polymeric, P-contg. compns. are made by heating, in the presence of an initiator, preferably a free radical initiator, and optionally in the presence of one or more comonomers, at least one substituted phosphonylated 2,2'-dihydroxy-1,1'-binaphthalene or at least one substituted 2,2'-dihydroxy-1,1'-biphenylene. Thus, cooling a mixt. of 2.450 g 2,2-bis(4-hydroxy-3-methylphenyl)propane, 0.865 g acryloyl chloride, 40 mL PhMe and 8 mL THF to -30°, adding 1.2 g Et3N in 15 mL PhMe, removing a quarter of the solvent in vacuo, cooling the mixt. to -30°, combining with 2.266 g the phosphorodichlorodite of 2-isopropylphenol and 1.2 g Et3N in 10 mL PhMe, stirring for 1.5 h and reacting with 1.157 g 3,3',5,5'-tetramethyl-2,2'-biphenol for overnight gave an unsatd. P-contg. bidentate ligand which was used in prepn. of a catalyst by mixing with Ni bis(1,5-cyclooctadiene).

L7 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:284114 CAPLUS
 DOCUMENT NUMBER: 138:305793
 TITLE: Method for converting, in one part, of ethylenically unsaturated compounds into nitriles, and in the other part, of branched nitriles into linear nitriles
 INVENTOR(S): Charnard, Alex; Galland, Jean Christophe; Didillon, Blaise
 PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
 SOURCE: Fr. Demande, 25 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2830530	A1	20030411	FR 2001-12932	20011008
FR 2830530	B1	20040702		
WO 2003031392	A1	20030417	WO 2002-FR3385	20021004
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
AU 2002358827	A1	20030422	AU 2002-358827	20021004
PRIORITY APPLN. INFO.:			FR 2001-12932	A 20011008
			WO 2002-FR3385	W 20021004

OTHER SOURCE(S): CASREACT 138:305793; MARPAT 138:305793
 AB The present invention relates to a process of hydrocyanation of organic compds. with ethylenically unsatn. to compds. having ≥ 1 nitrile group. The present invention proposes a process of hydrocyanation of a hydrocarbon compound having ≥ 1 ethylenic unsatn. by reaction in liquid medium with hydrogen cyanide in the presence of a catalyst with good stability based on a transition metal and a organophosphorus ligand characterized in that the organophosphorus ligand has 2 P atoms connected by a bridge and aromatic groups on the P atoms such as α,α' -diphenylphosphino-o-xylene. This catalyst is also useful for converting branched nitriles to linear nitriles.
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L7 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:223752 CAPLUS
 DOCUMENT NUMBER: 138:254847
 TITLE: Process for manufacture of nitrile and dinitrile compounds by reaction of alkenes or unsaturated nitriles with hydrogen cyanide in ionic liquid solvents and application to the production of adiponitrile
 INVENTOR(S): Basset, Jean Marie; Chauvin, Yves; Galland, Jean Christophe
 PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
 SOURCE: Fr. Demande, 22 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2829763	A1	20030321	FR 2001-12040	20010918
FR 2829763	B1	20041203		
WO 2003024919	A1	20030327	WO 2002-FR3166	20020917
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
AU 2002342980	A1	20030401	AU 2002-342980	20020917
EP 1427695	A1	20040616	EP 2002-779637	20020917
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
CN 1564807	A	20050112	CN 2002-819851	20020917
JP 2005503410	T	20050203	JP 2003-528767	20020917
JP 4166155	B2	20081015		
RU 2265591	C2	20051210	RU 2004-111655	20020917
IN 2004CN00554	A	20051223	IN 2004-CN554	20040315
US 20040260112	A1	20041223	US 2004-489838	20040818
PRIORITY APPLN. INFO.:			FR 2001-12040	A 20010918
			WO 2002-FR3166	W 20020917

OTHER SOURCE(S): CASREACT 138:254847
 AB The invention relates to the manufacture of nitriles from unsatd. organic compds. by reaction with HCN. In particular, it relates to manufacture of nitriles used in the synthesis of adiponitrile, an important chemical intermediate for the manufacture of, e.g., hexamethylenediamine and ϵ -caprolactam. The process provides compds. containing ≥ 1 nitrile function by hydrocyanation, with HCN, of an organic compound containing ≥ 1 ethylenic unsatn. The reaction takes place in the presence of a catalytic system comprising nickel, platinum, or palladium, and an organophosphorus ligand, using an ionic liquid

L7 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 reaction medium. A Lewis acid cocatalyst, functioning as an isomerization catalyst for unsatd. nitriles, may also be present. This cocatalyst provides for isomerization of undesired branched unsatd. nitriles to give preferred linear isomers, which undergo hydrocyanation to give adiponitrile. The anion of the ionic solvent may also function as a Lewis acid. For instance, the ionic liq. 1-butyl-2,3-dimethylimidazolium bis(trifluoromethylsulfonyl)amide (I) was prepd. in 90% yield from the corresponding imidazolium chloride and lithium amide salts in water at room temp. 1 and 2 other imidazolium salts were prepd. and tested as solvents and isomerization catalysts in a representative hydrocyanation reaction mixt. Thus, a mixt. of unsatd. C5 nitriles contg. 79% 2-methyl-3-butenitrile (II) was subjected to isomerization in a soln. of I and heptane in the presence of NI(COD)2 (hydrocyanation catalyst) and 3-(Ph2P)C6H4SO3Na (ligand) at 100° for 3 h. The isomerization reaction gave 96% conversion of II, with a 94% yield of the desired linear isomers 3-pentenitrile (III) and 4-pentenitrile, with only 2.4% yield of undesired isomers. In a hydrocyanation reaction of III using the same catalyst and ligand, I as solvent, Me2C(OH)CN as the source of HCN, and added ZnCl2 as an addnl. Lewis acid, desired dinitrile products (including adiponitrile) were obtained in 16.0% yield with 25.9% conversion of III.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:521695 CAPLUS
 DOCUMENT NUMBER: 137:95522
 TITLE: Method for making nitrile compounds from ethylenically unsaturated compounds in presence of transition metal complexes with organophosphorus ligands
 INVENTOR(S): Burattin, Paolo; Chamard, Alex; Galland, Jean-Christophe
 PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
 SOURCE: PCT Int. Appl., 26 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053527	A1	20020711	WO 2001-FR4154	20011221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2819250	A1	20020712	FR 2001-137	20010105
FR 2819250	B1	20041203		
AU 2002226477	A1	20020716	AU 2002-226477	20011221
DE 10197144	T0	20031204	DE 2001-10197144	20011221
CN 100376548	C	20080326	CN 2001-822427	20011221
US 20040063991	A1	20040401	US 2003-250477	20031106
US 7105696	B2	20060912		
PRIORITY APPLN. INFO.:			FR 2001-137	A 20010105
			WO 2001-FR4154	W 20011221

OTHER SOURCE(S): MARPAT 137:95522
 AB The invention concerns a method for hydrocyanation of ethylenically unsatd. organic compds. to compds. having ≥1 nitrile function. The invention provides a method for hydrocyanation of an ethylenically unsatd. hydrocarbon compound by reacting in liquid medium the hydrogen cyanide in the presence of a catalyst comprising a transition metal and an organophosphorus ligand, characterized in that the organophosphorus ligand is a furylphosphine. Using a Lewis acid with the above catalyst in the case of unsatd. aliphatic nitriles improves the yield of linear dinitriles during the hydrocyanation. This process is especially useful in the manufacture of adiponitrile from 3-pentenitrile.
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

L7 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L7 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:293580 CAPLUS
 DOCUMENT NUMBER: 136:327370
 TITLE: Hydrocyanation method and catalyst systems for converting ethylenically unsaturated organic compounds into nitriles
 INVENTOR(S): Burattin, Paolo; Galland, Jean-Christophe; Chamard, Alex
 PATENT ASSIGNEE(S): Rhodia Polyamide Intermediates, Fr.
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002030854	A2	20020418	WO 2001-FR3047	20011003
WO 2002030854	A3	20020613		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2815344	A1	20020419	FR 2000-13152	20001013
FR 2815344	B1	20040130		
TW 584623	B	20040421		
CA 2425384	A1	20020418	CA 2001-2425384	20011003
AU 2001095653	A	20020422	AU 2001-95653	20011003
EP 1324976	A2	20030709	EP 2001-976353	20011003
EP 1324976	B1	20060201		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001014807	A	20040106	BR 2001-14807	20011003
HU 2003003560	A2	20040301	HU 2003-3560	20011003
JP 2004511450	T	20040415	JP 2002-534244	20011003
JP 4118676	B2	20080716		
RU 2250896	C2	20050427	RU 2003-113534	20011003
AT 316955	T	20060215	AT 2001-976353	20011003
CN 1283620	C	20061108	CN 2001-818060	20011003
MX 2003PA03107	A	20040126	MX 2003-PA3107	20030409
US 20040063956	A1	20040401	US 2003-399237	20030924
US 7098358	B2	20060829		
PRIORITY APPLN. INFO.:			FR 2000-13152	A 20001013
			WO 2001-FR3047	W 20011003

OTHER SOURCE(S): MARPAT 136:327370
 AB A method for hydrocyanation of ethylenically unsatd. organic compds. into compds. comprising at least a nitrile function comprises the reaction of hydrogen cyanide in the presence of a catalytic system comprising a transition metal and an organophosphorus ligand with monophosphanorbornadiene structure and the process is particularly useful for the hydrocyanation of butadiene into

10586450

12/21/2008

L7 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
adiponitrile.

L7 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:238077 CAPLUS
DOCUMENT NUMBER: 132:280878
TITLE: Insoluble promoters for nickel-catalyzed hydrocyanation of monoolefins
INVENTOR(S): Clarkson, Lucy Mary; Herron, Norman; Kalb, William C.;
PATENT ASSIGNEE(S): McKinney, Ronald James; Moran, Edward Francis, Jr.
SOURCE: E. I. Du Pont de Nemours & Co., USA
U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6048996	A	20000411	US 1999-383898	19990826
TW 528743	B	20030421	TW 2000-89112277	20000622
CA 2381057	A1	20010301	CA 2000-2381057	20000718
WO 2001014321	A1	20010301	WO 2000-US19385	20000718
W: BR, CA, CN, ID, JP, KR, MX, SG				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
BR 2000013810	A	20020423	BR 2000-13810	20000718
EP 1212293	A1	20020612	EP 2000-950380	20000718
EP 1212293	B1	20050223		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003507451	T	20030225	JP 2001-518411	20000718
CN 100363334	C	20080123	CN 2000-812091	20000718
MX 2002PA01941	A	20021031	MX 2002-PA1941	20020222
PRIORITY APPLN. INFO.:				US 1999-383898 A 19990826
				WO 2000-US19385 W 20000718

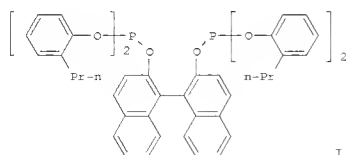
AB An improved process for converting an acyclic monoolefin to its corresponding terminal organonitrile by reacting the monoolefin with hydrogen cyanide in the presence of zero-valent nickel, a phosphite ligand, and an insol. Lewis acid promoter is disclosed.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:113641 CAPLUS
DOCUMENT NUMBER: 130:169816
TITLE: Hydrocyanation processes for aliphatic monoethylenically unsaturated compounds and multidentate phosphite ligand and nickel catalyst compositions therefor
INVENTOR(S): Garner, James Michael; Kruetzer, Kristina Ann; Tam, Wilson
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906358	A1	19990211	WO 1998-US15305	19980723
W: BR, CA, CN, ID, JP, KR, SG				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
ZA 9806376	A	20000117	ZA 1998-6376	19980717
EP 1000022	A1	20000517	EP 1998-937046	19980723
EP 1000022	B1	20050330		
R: BE, DE, FR, GB, IT, NL				
US 6127567	A	20001003	US 1998-121105	19980723
TW 285194	B	20070811	TW 1998-87111728	19980801
US 6171996	B1	20010109	US 1999-351642	19990713
PRIORITY APPLN. INFO.:				US 1997-53831P P 19970729
				US 1998-121105 A3 19980723
				WO 1998-US15305 W 19980723

OTHER SOURCE(S): MARPAT 130:169816
GI



AB A process for hydrocyanation of an aliphatic monoethylenically unsatd. compound, in which the ethylenic double bond is not conjugated to any other unsatd. group in the mol., or a monoethylenically unsatd.

continued
saeed

L7 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:113639 CAPLUS
DOCUMENT NUMBER: 130:168761
TITLE: Hydrocyanation processes and multidentate phosphite ligand and nickel catalyst compositions therefor
INVENTOR(S): Garner, James Michael; Tam, Wilson
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906356	A1	19990211	WO 1998-US15079	19980723
W: BR, CA, CN, ID, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5959135	A	19990928	US 1998-111907	19980708
ZA 9806379	A	20000117	ZA 1998-6379	19980717
EP 1000019	A1	20000517	EP 1998-934667	19980723
EP 1000019	B1	20030219		
R: BE, DE, FR, GB, IT, NL				
TW 453983	B	20010911	TW 1998-87112463	19980801
HK 1025950	A1	20030704	HK 2000-105299	20000823
PRIORITY APPLN. INFO.:			US 1997-54075P	F 19970729
			WO 1998-US15079	W 19980723

OTHER SOURCE(S): MARPAT 130:168761
AB A process for hydrocyanation of an aliphatic monoethylenically unsatd. compound, in which the ethylenic double bond is not conjugated to any other unsatd. group in the mol., uses a catalyst composition comprising a zero-valent nickel and a multidentate phosphite ligand in the presence of a Lewis acid promoter.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:752788 CAPLUS
DOCUMENT NUMBER: 128:36351
ORIGINAL REFERENCE NO.: 128:7143a,7146a
TITLE: Processes and catalyst compositions containing nickel complex with bidentate phosphite ligand for hydrocyanation of monoolefins
INVENTOR(S): Tam, Wilson; Kreutzer, Kristina Ann; McKinney, Ronald James
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 198,963, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5688986	A	19971118	US 1995-424351	19950426
IN 181958	A1	19981121	IN 1994-CA894	19941028
WO 9514659	A1	19950601	WO 1994-US12794	19941107
W: BR, CA, CN, JP, KR, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
IN 182654	A1	19990612	IN 1995-CA414	19950417
US 5723641	A	19980303	US 1996-721068	19960926
IN 186510	A1	20010922	IN 1998-CA2223	19981229
PRIORITY APPLN. INFO.:			US 1993-157342	B2 19931123
			US 1994-198963	B2 19940218
			WO 1994-US12794	W 19941107
			IN 1995-CA414	A 19950417
			US 1995-424351	A3 19950426

OTHER SOURCE(S): MARPAT 128:36351
AB Hydrocyanation of nonconjugated acyclic aliphatic monoolefins, monoolefins conjugated to an ester group, or monoolefins conjugated to a nitrile group uses a catalyst precursor composition comprising a bidentate phosphite ligand and zero-valent Ni preferably in the presence of a Lewis acid promoter. Thus, 3-pentenenitrile was treated with HCN at 30 cm³/min N at 50° for 15 min, 60° for 15 min, and 70° for 15 min in the presence of 0.073 mmole bis-1,5-cyclooctadiene nickel and 0.44 mmole ligand {2,2'-bis-[1,1'-biphenyl-2,2'-diylphosphite]-3,3'-di-t-butyl-5,5'-dimethoxy-1,1'-biphenyl} to give 77.1% adiponitrile and 20.7% 2-methyl-glutaronitrile.

L7 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:788781 CAPLUS
DOCUMENT NUMBER: 130:26464
TITLE: Process for the hydrocyanation of olefins using bidentate phosphite ligands and zero-valent nickel catalyst systems which enable facile nitrile product and catalyst separation
INVENTOR(S): Bunel, Emilio Enrique; Mcmulty, Kenneth C.
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5847191	A	19981208	US 1997-902438	19970729
TW 580490	B	20040321	TW 1998-87111507	19980715
CA 2291640	A1	19990211	CA 1998-2291640	19980728
CA 2291640	C	20040921		
WO 9906359	A1	19990211	WO 1998-US15621	19980728
W: CA, CN, ID, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1001928	A1	20000524	EP 1998-936024	19980728
EP 1001928	B1	20050406		
R: BE, DE, ES, FR, GB, IT, NL				
JP 2001512097	T	20010821	JP 2000-505121	19980728
JP 3380543	B2	20030224		
CN 100361966	C	20080116	CN 1998-807606	19980728
PRIORITY APPLN. INFO.:			US 1997-902438	A 19970729
			WO 1998-US15621	W 19980728

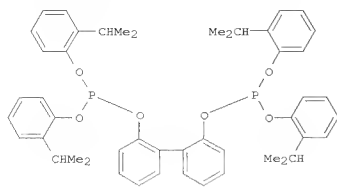
OTHER SOURCE(S): MARPAT 130:26464
AB Nitriles (e.g., adiponitrile) are prepared in high yield and selectivity by the hydrocyanation of an alkene (e.g., 3-pentenenitrile) in a two-phase process solvent (e.g., liquid HCN extracted with pentane) with HCN in the presence of a Lewis acid promoter (e.g., ZnCl₂) and a catalyst system comprising zero-valent nickel [e.g., Nickel bis(cyclooctadiene)] and an aromatic-substituted bidentate phosphite ligand (PR₂)nR₁ [R, R₁ = organic residues which may be the same or different and where the R or R' contain at ≥1 C₉-40 aliphatic group positioned as a tail extending away from the primary ligand structure rendering the ligand lipophilic; n = 1, 2].
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L7 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:446577 CAPLUS
DOCUMENT NUMBER: 125:114851
ORIGINAL REFERENCE NO.: 125:21571a,21574a
TITLE: Hydrocyanation process and multidentate phosphite and nickel catalyst composition therefor
INVENTOR(S): Kreutzer, Kristina Ann; Tam, Wilson
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9611182	A1	19960418	WO 1995-US12214	19950929
W: BR, CA, CN, JP, KR, SG RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5512696	A	19960430	US 1995-505137	19950721
IN 184220	A1	20000708	IN 1995-CA1160	19950926
CA 2200303	A1	19960418	CA 1995-2200303	19950929
CA 2200303	C	20070109		
EP 784610	A1	19970723	EP 1995-935101	19950929
EP 784610	B1	19990210		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
CN 1159799	A	19970917	CN 1995-195429	19950929
CN 1047163	C	19991208		
BR 9509494	A	19971014	BR 1995-9494	19950929
JP 10506911	T	19980707	JP 1996-512592	19950929
JP 3535172	B2	20040607		
AT 176665	T	19990215	AT 1995-935101	19950929
ES 2129234	T3	19990601	ES 1995-935101	19950929
US 5663369	A	19970902	US 1995-543672	19951016
PRIORITY APPLN. INFO.:			US 1994-320025	A 19941007
			US 1995-505137	A 19950721
			WO 1995-US12214	W 19950929

OTHER SOURCE(S): CASREACT 125:114851
G1

L7 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



I

AB A process for hydrocyanation of an aliphatic monoethylenically unsatd. compound, in which the ethylenic double bond is not conjugated to any other unsatd. group in the mol., or a monoethylenically unsatd. compound

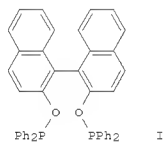
in which the ethylenic double bond is conjugated to an ester group, which process uses a catalyst composition comprising a zero-valent nickel and a multidentate phosphite ligand in the presence of a Lewis acid promoter. Thus, Ni(COD)2-catalyzed hydrocyanation of 3-pentenitrile with HCN in the presence of ligand I (preparation given) and ZnCl2 in THF gave a mixture of 46.7% adiponitrile, 8% 2-methylglutaronitrile, and 1% Et succinonitrile.

L7 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:392151 CAPLUS
DOCUMENT NUMBER: 125:114201
ORIGINAL REFERENCE NO.: 125:21419a, 21422a
TITLE: Process for hydrocyanation of pentenenitriles, alkylpentenoates, and perfluoroalkylethenes with nickel(0) compounds and bidentate phosphorus ligands as catalysts in presence of Lewis acid promoters
INVENTOR(S): Breikis, Anne I.
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5523453	A	19960604	US 1995-408250	19950322
IN 186815	A1	20011117	IN 1996-CA206	19960205
CA 2214009	A1	19960926	CA 1996-2214009	19960307
CA 2214009	C	20040224		
WO 9629303	A1	19960926	WO 1996-US2551	19960307
W: BR, CA, CN, JP, KR, SG RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 815073	A1	19980107	EP 1996-908520	19960307
EP 815073	B1	20010718		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
CN 1179147	A	19980415	CN 1996-192673	19960307
CN 1069310	C	20010808		
JP 10505101	T	19980519	JP 1996-528423	19960307
JP 2911608	B2	19990623		
BR 9607982	A	19980623	BR 1996-7982	19960307
AT 203233	T	20010815	AT 1996-908520	19960307
PRIORITY APPLN. INFO.: US 1995-408250 A 19950322				
WO 1996-US2551 W 19960307				
OTHER SOURCE(S): CASREACT 125:114201; MARPAT 125:114201				
GI				

L7 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



I

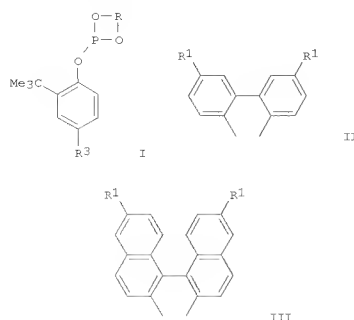
AB A process for hydrocyanation comprises reacting 2-pentenitrile, 3-pentenitrile, 4-pentenitrile, alkyl-3-pentenoate, alkyl-4-pentenoate, or $C_zF_{2z+1}CH:CH_2$ ($z = 1-12$) with HCN in the presence of a Lewis acid promoter and a catalyst comprising a zero-valent Ni compound and a bidentate phosphorus ligand, e.g., biaryl diphenylphosphinite ligand I, or an analog. The HCN adds to the double bond primarily in an anti-Markovnikov manner. Thus, hydrocyanation of 3-pentenitrile with HCN in the presence of Ni(COD)2 (COD = 1,5-cyclooctadiene), ligand I (preparation given), and ZnCl2 as Lewis acid promoter in THF afforded 36.8% adiponitrile, 12.0% methylglutaronitrile, and 1.2% ethylsuccinonitrile as determined by GC anal.

L7 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:998185 CAPLUS
DOCUMENT NUMBER: 124:147112
ORIGINAL REFERENCE NO.: 124:27385a, 27388a
TITLE: Monodentate phosphite and nickel catalyst composition for monoolefin hydrocyanation
INVENTOR(S): Tam, Wilson
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9529153	A1	19951102	WO 1995-US4441	19950420
W: BR, CA, CN, JP, KR RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5543536	A	19960806	US 1994-233194	19940426
IN 182458	A1	19990417	IN 1995-CA416	19950417
CA 2186357	A1	19951102	CA 1995-2186357	19950420
CA 2186357	C	20060131		
EP 757672	A1	19970212	EP 1995-916301	19950420
EP 757672	B1	19990616		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
CN 1146762	A	19970402	CN 1995-192758	19950420
CN 1052718	C	20000524		
BR 9507852	A	19970916	BR 1995-7852	19950420
JP 09512534	T	19971216	JP 1995-527671	19950420
JP 4057050	B2	20060305		
AT 181321	T	19990715	AT 1995-916301	19950420
ES 2135058	T3	19991016	ES 1995-916301	19950420
CN 1247102	A	20000315	CN 1999-108934	19990701
CN 1106218	C	20030423		
PRIORITY APPLN. INFO.: US 1994-233194 A 19940426				
WO 1995-US4441 W 19950420				
OTHER SOURCE(S): MARPAT 124:147112				
GI				

L7 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

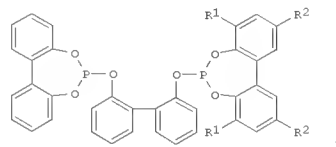


AB Monoolefins are hydrocyanated using catalyst compns. comprising zero-valent nickel and a monodentate phosphite ligand (I) in the presence of a Lewis acid promoter, wherein R is (II) or (III); each R1, independently, is H, C1-8 alkyl or OR2; R2, independently, is C1-8 alkyl; and R3 is H, C1-8 alkyl or OR2. 3-Pentenenitrile was hydrocyanated using nickel di(1,5-cyclooctadiene) catalyst and 1-(1,1'-biphenyl-2,2'-diyl phosphite)-2-tert-butyl-4-methoxyphenyl ligand in the presence of chloride promoter.

L7 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:997342 CAPLUS
 DOCUMENT NUMBER: 124:118251
 ORIGINAL REFERENCE NO.: 124:22045a, 22048a
 TITLE: Bidentate phosphite and nickel in catalyst compositions for hydrocyanation of monoolefins
 INVENTOR(S): Kreutzer, Kristina Ann; Tam, Wilson
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
 SOURCE: PCT Int. Appl., 41 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9528228	A1	19951026	WO 1995-US4301	19950412
W: BR, CA, CN, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5512695	A	19960430	US 1995-400163	19950307
CA 2186351	A1	19951026	CA 1995-2186351	19950412
CA 2186351	C	20060228		
EP 755302	A1	19970129	EP 1995-915596	19950412
EP 755302	B1	20001004		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
BR 9507460	A	19970902	BR 1995-7460	19950412
JP 09512013	T	19971202	JP 1995-527011	19950412
JP 3519410	B2	20040412		
AT 196745	T	20001015	AT 1995-915596	19950412
PRIORITY APPLN. INFO.:			US 1994-227802	A 19940414
			US 1995-400163	A 19950307
			WO 1995-US4301	W 19950412

OTHER SOURCE(S): MARPAT 124:118251
 GI



AB A catalyst composition comprising an unsym. bidentate phosphite ligand

L7 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 , e.g., I (R1 = Me3C, EtCMe2; R2 = R1, CMe), and zero-valent Ni, e.g., bis(1,5-cyclooctadiene)nickel, is used, optionally with a Lewis acid such as ZnCl2, for the hydrocyanation of monoolefins to give products with terminal nitrile groups, e.g., of 3-pentenenitrile to give adiponitrile.

L7 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:872061 CAPLUS
 DOCUMENT NUMBER: 123:286288
 ORIGINAL REFERENCE NO.: 123:51315a, 51318a
 TITLE: Processes and catalyst compositions for hydrocyanation of monoolefins
 INVENTOR(S): Tam, Wilson; Kreutzer, Kristina Ann; McKinney, Ronald James
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
 SOURCE: PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9514659	A1	19950601	WO 1994-US12794	19941107
W: BR, CA, CN, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
IN 181958	A1	19981121	IN 1994-CA894	19941028
CA 2177135	A1	19950601	CA 1994-2177135	19941107
CA 2177135	C	20050426		
EP 730574	A1	19960911	EP 1995-901801	19941107
EP 730574	B1	19980819		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CN 1142224	A	19970205	CN 1994-194862	19941107
CN 1082946	C	20020417		
JP 09505586	T	19970603	JP 1995-515089	19941107
JP 3553952	B2	20040811		
BR 9408151	A	19970805	BR 1994-8151	19941107
AT 163902	T	19980915	AT 1995-901801	19941107
ES 2122515	T3	19981216	ES 1995-901801	19941107
TW 457244	B	20011001	TW 1994-83110338	19941108
IN 182654	A1	19990612	IN 1995-CA414	19950417
US 5688986	A	19971118	US 1995-424351	19950426
IN 186510	A1	20010922	IN 1998-CA2223	19981229
CN 1327881	A	20011226	CN 2001-117070	20010420
CN 1145531	C	20040414		
PRIORITY APPLN. INFO.:			US 1993-157342	A2 19931123
			US 1994-198963	A2 19940218
			WO 1994-US12794	W 19941107
			IN 1995-CA414	A 19950417

OTHER SOURCE(S): CASREACT 123:286288; MARPAT 123:286288
 GI For diagram(s), see printed CA Issue.

AB Processes for hydrocyanation of nonconjugated acyclic aliphatic monoolefins, monoolefins conjugated to an ester group, or monoolefins conjugated to a nitrile group, e.g., 3-pentenenitrile, which use a catalyst precursor composition comprising a bidentate phosphite ligand I (wherein each R1 is independently a tertiary substituted hydrocarbon of up to 12 C atoms, or OR4 wherein R4 is C1-12 alkyl; each R5 is independently a tertiary substituted hydrocarbon of up to 12 C atom) and zero-valent Ni preferably in the presence of a Lewis

10586450

12/21/2008

L7 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
acid promoter. Catalyst precursor compns. are also disclosed.

10586450 12/21/2008

=> logoff

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

119.26

119.47

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-24.00

-24.00

STN INTERNATIONAL LOGOFF AT 16:51:13 ON 21 DEC 2008